

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A data communication system comprising: a transmitter having first and second transmitting antennae, the first antenna having a signal path exhibiting a different delay than a signal path of the second antenna; and a receiver having third and fourth receiving antennae, the third antenna having a signal path exhibiting a different delay than a signal path of the fourth antenna, wherein a nonzero delay of one of the signal paths of the first and second antennae is different from a nonzero delay of one of the signal paths of the third and fourth antennae.
2. (cancelled)
3. (previously presented) The data communication system of claim 2, wherein one of the nonzero delays is twice that of the other nonzero delay.
4. (previously presented) The data communication system of claim 1, wherein the transmitter further comprises a transceiver which is capable of both transmission and reception at different times by means of the first and second antennae; and wherein the receiver further comprises a transceiver which is capable of both transmission and reception at different times by means of the third and fourth antennae.
5. (original) The data communication system of claim 1, wherein the data further comprises voice data.
6. (original) The data communication system of claim 1, wherein the data further comprises digital data.

7. (previously presented) The data communication system of claim 1, wherein the RF signal path of the first antenna comprises an RF delay element and an RF adder and the signal path of the second antenna comprises an RF adder; and wherein the signal path of the third antenna comprises an RF delay element and an RF adder and the signal path of the fourth antenna comprises an RF adder.

8. (previously presented) The data communication system of claim 1, wherein the transmitter further comprises at least one or more of a coder and a guard interval insertion processor; and wherein the receiver further comprises at least one or more of a decoder responsive to codes utilized by the coder and a guard interval recognition processor.

9. (original) The data communication system of claim 1, wherein the delays comprise RF delays.

10. (original) The data communication system of claim 1, wherein the delays comprise IF delays.

11. (original) The data communication system of claim 1, wherein the delays comprise baseband delays.

12. (currently amended) A WLAN system comprising:
an access point having a transceiver coupled to first and second transceiving antennae, the first transceiving antenna having a signal path exhibiting a different delay than a signal path of the second transceiving antenna; and
one or more mobile terminals each having a transceiver coupled to third and fourth transceiving antennae, the third transceiving antenna having a signal path exhibiting a different delay than a signal path of the fourth transceiving antenna, wherein a nonzero delay of one of the signal paths of the first and second transceiving antennae is different from a nonzero delay of one of the signal paths of the third and fourth transceiving antennae.

13. (cancelled)

14. (previously presented) The WLAN system of claim 13, wherein one of the nonzero delays is twice that of the other nonzero delay.

15. (previously presented) The WLAN system of claim 12, wherein multiple antennae and different delays provide an (L, L) diversity system exhibiting $2L$ diversity plus $10 \log 10(L)$ dB performance.

16. (original) The WLAN system of claim 12, wherein each transceiver further comprises an OFDM system.

17. (original) The WLAN system of claim 16, wherein the OFDM system utilizes one of binary phase shift keying (BPSK), quadrature phase shift keying (QPSK), 16-quadrature amplitude modulation (16-QAM) or 64-QAM.

18. (previously presented) The WLAN system of claim 12, wherein each transceiver further comprises at least one or more of a coder and a guard interval insertion processor; and at least one or more of a decoder responsive to codes utilized by the coder and a guard interval recognition processor.

19. (original) The WLAN system of claim 12, wherein the delays comprise RF delays.

20. (original) The WLAN system of claim 12, wherein the delays comprise IF delays.

21. (original) The WLAN system of claim 12, wherein the delays comprise baseband delays.